

(19) World Intellectual Property
Organization
International Bureau



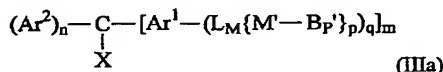
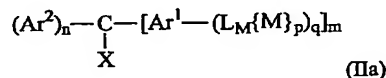
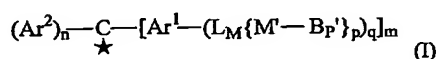
(43) International Publication Date
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number
WO 2005/057207 A1

- (51) International Patent Classification⁷: **G01N 33/48**, C07H 21/00, C07D 207/46, 207/44, C07K 17/06
- (21) International Application Number: **PCT/GB2004/005140**
- (22) International Filing Date: 8 December 2004 (08.12.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0328414.8 8 December 2003 (08.12.2003) GB
0421110.8 22 September 2004 (22.09.2004) GB
04104605.3 22 September 2004 (22.09.2004) EP
- (71) Applicant (for all designated States except US): **OXFORD GENE TECHNOLOGY IP LIMITED** [GB/GB]; Begbroke Business & Science Park, Hirsch Building, Sandy Lane, Yarnton, Oxford OX5 1PF (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SHCHEPINOV, Mikhail, Sergeevich** [RU/GB]; Oxford Gene Technology, Begbroke Business & Science Park, Hirsch Building, Sandy Lane, Yarnton, Oxford OX5 1PF (GB). **SOUTHERN, Edwin, Mellor** [GB/GB]; Oxford Gene Technology, Begbroke Business & Science Park, Hirsch Building, Sandy Lane, Yarnton, Oxford OX5 1PF (GB).
- (74) Agents: **MARSHALL, Cameron, John et al.**; Carpmaels & Ransford, 43-45 Bloomsbury Square, London WC1A 2RA (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TRITYL DERIVATIVES FOR ENHANCING MASS SPECTROMETRY



(57) Abstract: The present invention provides a method of forming an ion of formula (I) comprising the steps of: (i) reacting a compound of the formula (IIa); with a biopolymer, Bp, having at least one group capable of reacting with M to form a covalent linkage, to provide a biopolymer derivative of the formula (IIIa); and (ii) cleaving the C-X bond between X and the a-carbon atom of the derivative of formula (IIIa) to form the ion of formula (I); where: C* is a carbon atom bearing a single positive charge or a single negative charge; and X is a group capable of being cleaved from the a-carbon atom to form an ion of formula (I). The biopolymer derivatives of the invention have enhanced ionisability with respect to free biopolymer (Bp) enabling improved analysis of the biopolymer using mass spectrometry.